

(No Model.)

2 Sheets—Sheet 1.

J. OSTERTAG, Jr.

TURN BRIDGE GATE.

No. 300,326.

Patented June 10, 1884.

Fig. 2.

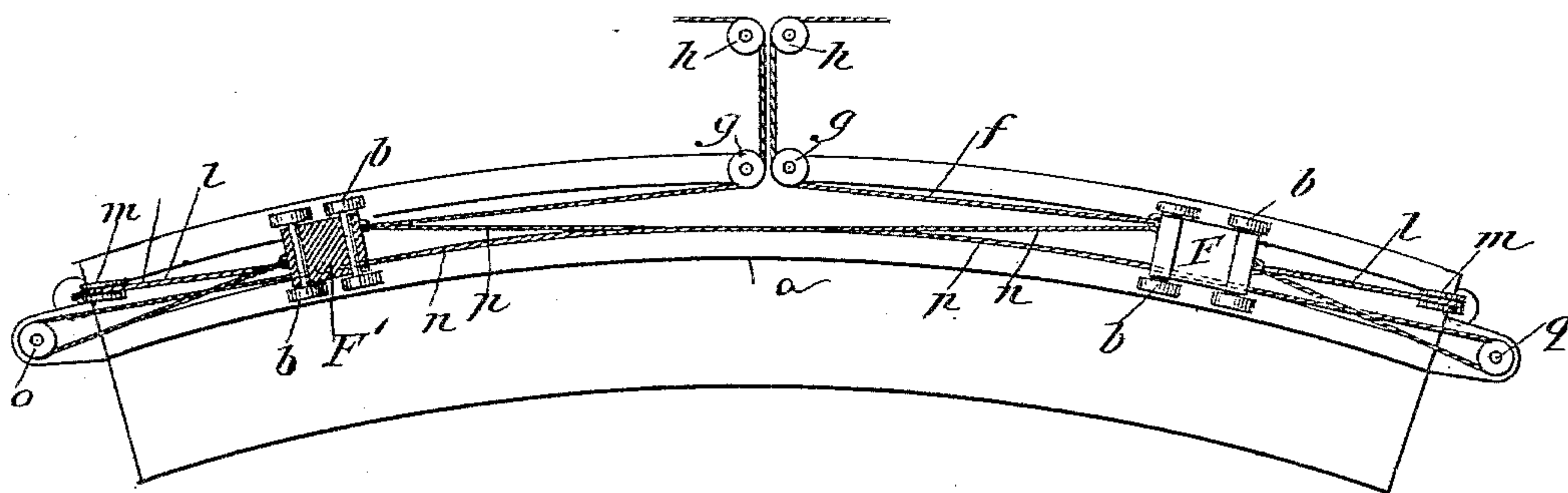
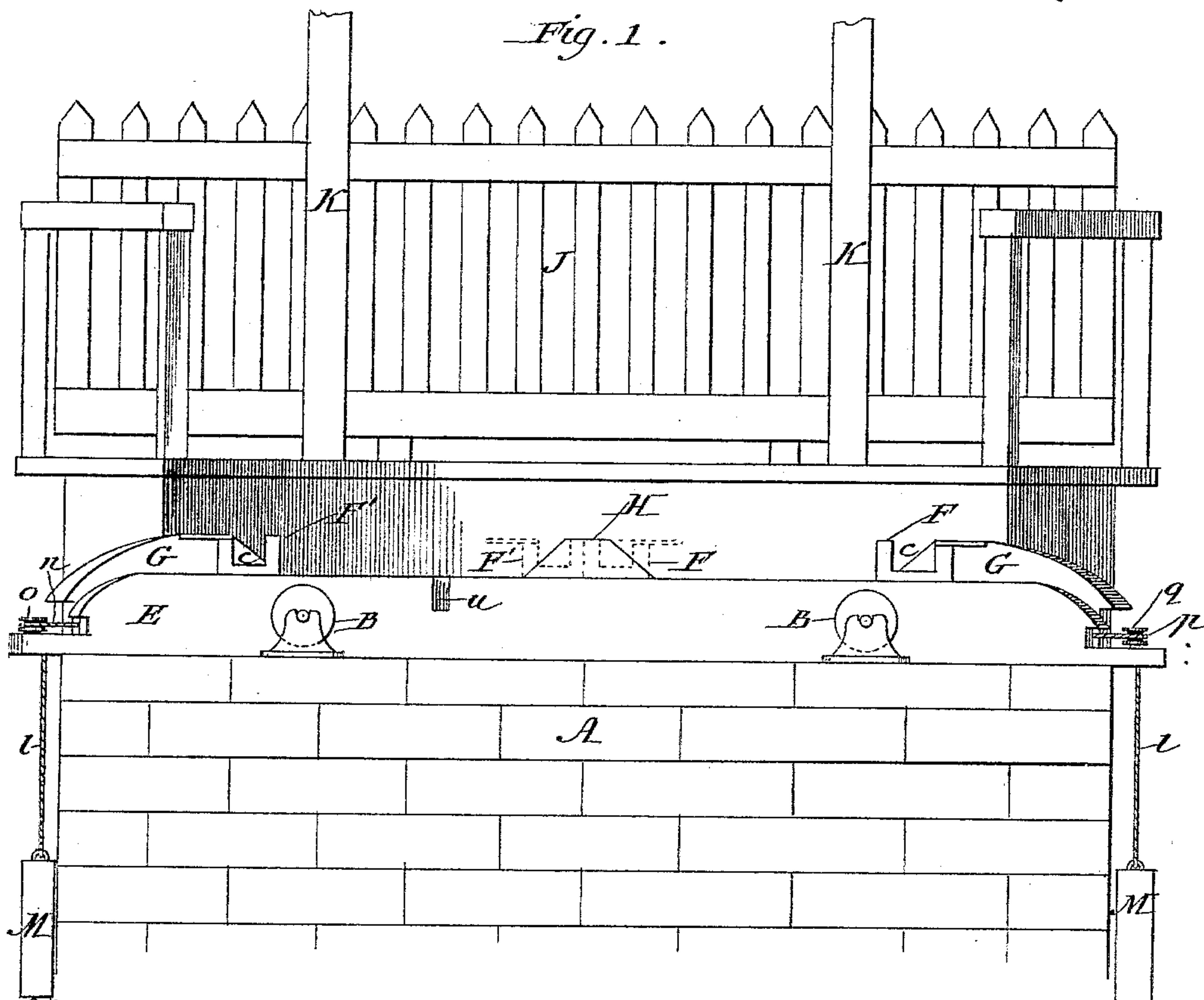


Fig. 1.



Witnesses:

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M. J. Baggett

Inventor:

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By Wm. B. Ritz
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(No Model.)

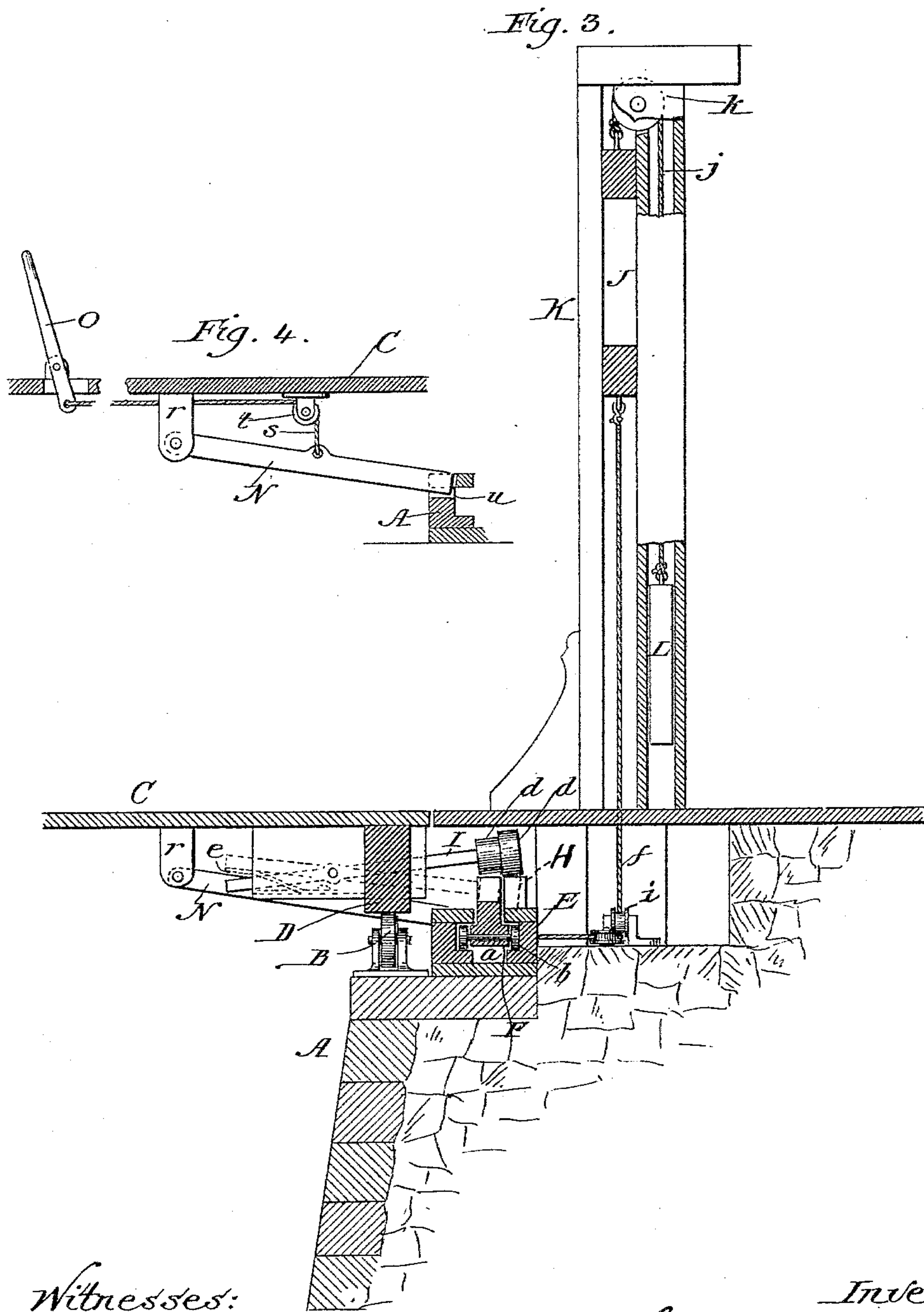
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M. J. Cagett

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UNITED STATES PATENT OFFICE.

JOHN OSTERTAG, JR., OF CHICAGO, ILLINOIS.

TURN-BRIDGE GATE.

SPECIFICATION forming part of Letters Patent No. 300,326, dated June 10, 1884.

Application filed February 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN OSTERTAG, Jr., a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Turn-Bridge Gates, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improved turn-bridge gate. The object of the invention is to provide simple and effective means for operating gates which are adapted to obstruct the ways leading to turn-bridges when said bridges are open for the passage of boats, whereby the many serious accidents and consequent loss of life may be avoided; and to that end the invention consists of the novel devices and combination of devices as will be described and claimed.

Reference will be made to the accompanying drawings, in which Figure 1 is a front elevation of the abutment; Fig. 2, a bottom plan of part thereof; Fig. 3, a sectional view of the same and part of the bridge; and Fig. 4, a view in detail, showing the locking mechanism.

Like letters refer to like parts in each view.

A represents one abutment, upon the ledge of which the rollers B are mounted, said rollers serving as a guide to the bridge C, a downwardly-projecting beam, D, of which rests upon said rollers when the bridge is closed. Upon the ledge of the abutment, but upon a higher plane than the rollers B, is formed a frame-work, E, of masonry or other suitable material, in which a groove, *a*, is formed. In groove *a* two carriages, F F', are situated, said carriages being provided with rollers *b*, which move on suitable ledges in said groove, and each carriage being provided on its upper edge with a notch or recess, *c*. To the rear of groove *a*, at each end thereof, there is situated a block, G, inclined at each end, and a similar block, H, is situated to the rear of said groove at about the center of the abutment.

Pivoted to bridge C, as shown in Fig. 3, is an arm, I, to the outer end of which rollers *d* are secured, while at a point below its inner end a spring, *e*, is placed, whereby the outer end of said arm is always depressed unless acted upon, as will be described. Attached

to the inner end of each carriage F F' is a cord, *f*, each of which passes around a pulley, *g*, situated at or about the center of the abutment, then around a pulley, *h*, situated slightly to the rear of said pulleys *g*, thence around a pulley, *i*, one at each side of the abutment, and up to the lower corner of the gate J, to which each is secured. Gate J is mounted in grooved uprights K, and to each of its upper corners is secured a cord, *j*, which passes over a pulley, *k*, and to the lower end of each of which is secured a weight, L.

To the rear or outer end of each carriage F F' there is secured a cord, *l*, which, after passing over a pulley, *m*, hangs down at the side of the abutment, and to each cord *l* is secured a weight, M.

Attached to the inner end of carriage F is a cord, *n*, which is passed under carriage F', around pulley *o*, and is secured to the outer end of said carriage F'. A cord, *p*, which is secured to the inner end of carriage F', is likewise carried under carriage F, around pulley *q*, and secured to the outer end of said carriage F.

Pivoted in a bracket, *r*, on the under side of the bridge is an arm, N, to the center of which is secured a cord, *s*, which, after passing over a pulley, *t*, is secured to the lower end of a lever, O, which is placed within easy reach of the bridge-tender. In the abutment there is formed a notch, *u*, into which the free end of arm N enters, to lock the bridge in position for the passage thereon of pedestrians or vehicles.

The operation of the device is as follows: When the bridge is in position for the passage of vehicles, &c., the gate J occupies the position shown in Fig. 3, and the carriages F F' that shown in dotted lines of Fig. 1. One roller of arm I rests upon the horizontal portion of block H, and the free end of arm N rests within the notch *u*. It being desired to open the bridge for the passage of boats or for other reasons, the bridge-tender operates lever O to raise the arm N from notch *u*, and proceeds to revolve the bridge. As soon as the bridge commences to revolve, one roller of arm I is forced into the notch of either carriage F or F', it depending upon which direction the bridge takes. Supposing, then, this arm has entered the notch of carriage F, said carriage

is forced toward the side of the abutment, and through the medium of cord *n*, described as attached to the inner end of carriage F and to the outer end of carriage F', said last-named carriage is forced toward the opposite side of the abutment, the weights M being so regulated as to assist in the easy movement of said carriages. As these carriages are thus forced toward opposite sides of the abutment, the gate is lowered through the medium of cords *f*, secured to the inner end of each carriage and to the bottom of the gate. The gate is thus lowered until the roller of arm I comes in contact with one of the inclined blocks G, when said arm is forced from the notch of the carriage and said carriage released, the parts being so arranged with respect to one another that by that time the gate will be completely closed. If the bridge is revolved entirely around, the arm I, upon contacting with the opposite incline G, will be forced into the notch of carriage F' and a reverse movement of the parts be brought about, whereby the gate will be again opened, the movement be-

ing continued until the arm comes in contact with incline H at the center of the abutment, whereby it is released from the carriage, the arm N at the same time reaching a point where it can again be dropped into notch *u* to lock the bridge in position.

What I claim is—

1. The carriages F F', joined together by cords *n p*, and to gate J by cords *f*, in combination with said gate J, bridge C, and arm I, pivoted to said bridge, as and for the purpose set forth.

2. The carriages F F', provided with weights M, and joined together and to gate J by suitable cords, in combination with gate J, provided with weights L, bridge C, and arm I, pivoted to said bridge, as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN OSTERTAG, JR.

Witnesses:

M. J. CLAGETT,
W. L. KLEWER.